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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,934	03/16/2005	Katsumi Kaneko	450100-05168	2376

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EXAMINER

HERNANDEZ, NELSON D

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2622

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/527,934	Applicant(s) KANEKO ET AL.	
	Examiner Nelson D. Hernández	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2005 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 6, 2008 has been entered.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on May 6, 2008 was filed after the mailing date of the Advisory Action on April 16, 2008. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Response to Amendment

3. The Examiner acknowledges the amended claims filed on May 6, 2008. **Claims 1, 5 and 6** have been amended.

Response to Arguments

4. Applicant's arguments with respect to **claims 1 and 5** have been considered but are moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bean et al., US 2003/0146981 A1 in view of Tonomura, JP 11-177930 A and further in view of Robinson et al., US Patent 5,428,399.

Regarding claim 1, Bean et al. discloses an image pick-up device (Fig. 1) comprising: image signal generation means (Sensor 136 as shown in fig. 2) for generating a first image signal of a variable frame-rate picked-up image (using variable frame rate trigger 128 as shown in fig. 3) and for generating other image signals of variable frame-rate picked-up image having a different frame-rate from the frame rate of the first image (See image signals (C1, C2, C3, C4, C5, and C6) with different frame rate as shown in fig. 3); and signal generation means (Fig. 2: 134) for generating a monitor image signal (displayed on monitor 152 as shown in fig. 1) by using the first image signal and the second image signal (Page 2, ¶ 0018-0021; page 3, ¶ 0022-0023 and ¶ 0027-0028).

Bean et al. does not explicitly disclose a frame addition processing means for generating a first image signal, from the variable frame-rate picked-up image signal, with a selected output frame-rate; and frame rate conversion means for matching a frame rate of the first image signal and a frame rate of a second image signal supplied

from an external device and that the monitor image signal is generated from the signals whose frame rate have been matched.

However, Tonomura discloses an image pick-up device (See fig. 1) comprising: image signal pick-up means (CCD 1 as shown in fig. 1) for picking up an image signal with a varied frame-rate (See Machine English Translation, page 3, ¶ 0013-0014); frame-addition processing means for generating a first image signal, from the variable frame-rate picked-up image signal, with a selected output frame rate (Tonomura discloses adjusting the image signals captured at different frame rates by extending or compressing the video signal so that the complete video signal has a common frame rate for reproduction. By teaching extending a video signal frame rate (i.e. 0.5X to 1X), Tonomura inherently discloses performing addition of a number of frames to the signal with a lower frame rate to compensate for a desired frame rate i.e. 1X) (See Machine English Translation, Page 3, ¶ 0013 – page 4, ¶ 0021; page 5, ¶ 0025); frame rate conversion means (See Machine English Translation, Page 3, ¶ 0013 – page 4, ¶ 0021) for converting a frame rate of a second image signal (having a different rate) to the output frame rate of the first image signal (See Machine English Translation, Page 3, ¶ 0013 – page 4, ¶ 0021); and signal generation means (Fig. 1: 6) for generating a monitor image signal by using the first image signal and the second image signal whose frame rates are matched with each other by the frame rate conversion means (See Machine English Translation, Page 3, ¶ 0013 – page 4, ¶ 0021; page 5, ¶ 0025).

Therefore, taking the combined teaching of Bean et al. in view of Tonomura as a whole, it would have been obvious to one of an ordinary skill in the art at the time the

invention was made to modify Bean et al. by having a frame addition processing means for generating a first image signal, from the variable frame-rate picked-up image signal, with a selected output frame-rate and a frame rate conversion means for matching a frame rate of the first image signal and a frame rate of a second image signal with each other and to have the monitor image signal generated from the signals whose frame rate have been matched. The motivation to do so would have been to improve the image pick-up device by allowing change of rate so that arbitrary field rates can be realized allowing a convenient synchronization between frames as suggested by Tonomura (Machine English Translation, page 3, ¶ 0010; page 5, ¶ 0028).

The combined teaching of Bean et al. in view of Tonomura fails to teach that the second image signal supplied from an external device.

However, Robinson et al. discloses the concept of having a converter capable of performing frame-rate conversion to a plurality of video signals originated by different sources. Robinson et al. discloses having a frame-rate conversion apparatus (See fig. 5) that receives image data from different external sources (Telecine Replay 2 or Video Tape Replay 4 as shown in fig. 5), wherein a standard converter (Fig. 5: 8) converts the frame rate of the input video image signals into a desirable frame-rate to either record the image signals or transmit said video signals using a particular frame-rate standards (PAL or NTSC). Robinson et al. further teaches recording the converted video signals into a recording device (Fig. 5: 12) (Col. 7, lines 21-62; col. 9, line 59 – col. 10, line 65; col. 11, lines 60-67).

Therefore, taking the combined teaching of Bean et al. in view of Tonomura and further in view of Robinson et al. as a whole, it would have been obvious to one of an ordinary skill in the art at the time the invention was made to apply the concept of having a frame-rate converter capable of receiving image signal from external sources to adjust the frame-rate of said video signal into a video with a desirable frame rate suitable for recording the video signals from the multiple sources at said desired frame rate into a single recording device as taught in Robinson et al. to modify the teaching of Bean et al. and Tonomura to have the frame-rate conversion means capable of receiving image data from an external device and to change the frame rate of said video signal into a desired frame-rate. The motivation to do so would have been to improve the capabilities of the image pickup device by allowing receiving image data from different sources and to record said image data from said different sources into a recording device at a desired frame rate.

Regarding claim 2, limitations can be found in claim 1.

Regarding claim 5, limitations have been discussed and analyzed in claim 1.

Regarding claim 6, limitations have been discussed and analyzed in claim 1.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bean et al., US 2003/0146981 A1 and Tonomura, JP 11-177930 A in view of Robinson et al., US Patent 5,428,399 and further in view of De Meerleer, US Patent 6,848,792 B1.

Regarding claim 3, the combined teaching of Bean et al. in view of Tonomura and further in view of Robinson et al. fails to teach that said signal generation means uses the first and second image signals to generate, as the monitor image signal, an image signal of an image in which an image based on the first image signal and an image based on the second image signal are mixed.

However, De Meerleer et al. discloses a system for combining image signals taken from different sources (20 and 22 as shown in fig. 2), wherein the system comprises a frame rate conversion means (Fig. 2: 24) for matching a frame rate of the first image signal and a frame rate of a second image signal (Col. 6, line 56 – col. 7, line 26); and signal generation means (Fig. 2: 18) for generating a monitor image signal by using the first image signal and the second image signal whose frame rates are matched (the frame rate of one video signal is matched to the frame rate of the other video signal) with each other by the frame rate conversion means (as shown in fig. 2, the two video signals are projected simultaneously after having the frame rate matched; see also col. 7, lines 2-16). Furthermore, De Meerleer et al. teaches displaying the two video signals having the matched frame rates simultaneously as shown in fig. 2 (Col. 2, line 37 – col. 3. line 13; col. 6, line 56 – col. 7, line 51).

Therefore, taking the combined teaching of Bean et al. and Tonomura in view of Robinson et al. and further in view of De Meerleer et al. as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching in Bean et al., Tonomura and Robinson et al. to have said signal generation means using the first and second image signals to generate, as the monitor image signal, an image signal of an image in which an image based on the first image signal and an image based on the second image signal are mixed. The motivation to do so would have been to improve the operability of the image pick-up device by having the ability of displaying combined video signals that were taken at different frame rates using a single display device displaying image signals at a single frame rate, thus the reproduction device would properly display the combined video signal.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bean et al., US 2003/0146981 A1 and Tonomura, JP 11-177930 A in view of Robinson et al., US Patent 5,428,399 and further in view of Torres et al., US Patent 6,738,075 B1.

Regarding claim 4, Regarding claim 4, the combined teaching of Bean et al. in view of Tonomura and further in view of Robinson et al. fails to teach that the signal generation means uses the first and second image signals to generate, as the monitor image signal, an image signal of an image in which a part of an image based on the first image signal is replaced by an image based on the second image signal.

However, Torres et al. discloses a digital video camera (Fig. 1) comprising: generation means (Fig. 1: 110) to generate a plurality of video images and signal generation means for generating a monitor image (to be displayed in display 140 as shown in fig. 1 an 2) signal by taking portions of the plurality of video images and combining them into a single video wherein portions of the video image signals can be deleted and replaced with a video image signal from a different video captured 9Col. 13, line 26 – col. 14, line 47).

Therefore, taking the combined teaching of Bean et al. and Tonomura in view of Robinson et al. and further in view of Torres et al. as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to consider the use of combining the video image signals as discussed by Torres et al. to create a single video signal by replacing portions of the plurality of videos to modify Bean et al., Tonomura and Robinson et al. to have the signal generation means using the first and second image signals to generate, as the monitor image signal, an image signal of an image in which a part of an image based on the first image signal is replaced by an image based on the second image signal. The motivation to do so would have been to improve the operation of the camera by allowing the user to define the portions of the videos recorded to be present in the final video created so that the user can have interactive control of the final video while looking at the display of the camera.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rybczynski, U.S. Patent 5,659,382 discloses, in Fig. 1-17, an image pick-up apparatus comprising: image shooting means (CCD array) for shooting a subject to generate an image signal having an image shooting frame rate (column 13 lines 14-19 and column 27 lines 15-21; where sequences in different frame rates are the input to the system and they maybe input from a CCD array); a first frame rate conversion unit for receiving the image signal from the image shooting means (CCD) and converting the frame rate of the image signal having the image shooting frame rate to a first desired frame rate (column 8 lines 16-22 and lines 46-55 and column 13 lines 3-19).

Additionally, Rybczynski discloses that the synthesized video with a first desired frame rate is then stored in a recording unit (column 26 lines 63-67) and displaying the captured video on a monitor (column 25 lines 44-47). Rybczynski further teaches, in Fig. 1-17, said signal processing unit generates a signal for indicating an image at a different moment for each frame, as said main line image signal; and said monitor image processing unit generates a signal for indicating an image at a different moment for each frame, as said monitor image signal (column 25 lines 44-47 and column 26 lines 63-67; where the frames are stored and displayed, and each frame would represent a different moment in time from the captured video).

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nelson D. Hernández whose telephone number is (571)272-7311. The examiner can normally be reached on 9:00 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye can be reached on (571) 272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nelson D. Hernández
Examiner
Art Unit 2622

NDHH
May 21, 2008

/Lin Ye/

Supervisory Patent Examiner, Art Unit 2622